

CLAIMS

What is claimed is:

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1. An integrated circuit, comprising:

a substrate having active circuitry;

a plurality of copper interconnect layers formed over the substrate;

a passivation layer formed over the plurality of interconnect layers; and

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an aluminum wire bond pad formed over the passivation layer and

connected to an interconnect layer of the plurality of interconnect

layers, wherein an electrical conductor is formed in a final copper

layer of the plurality of copper interconnect layers that directly

underlies the aluminum wire bond pad, and wherein the electrical

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conductor is not directly connected to wire bond pad.

2. The integrated circuit of claim 1, wherein the wire bond pad is connected to one of the plurality of interconnect layers through a plurality of openings in the passivation layer underneath the wire bond pad.

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3. The integrated circuit of claim 1, wherein the plurality of interconnect layers directly under the wire bond pad is for routing a power supply voltage to electrical circuits on the integrated circuit.

4. The integrated circuit of claim 1, wherein the wire bond pad is connected to one of the plurality of interconnect layers using one or more vias through the passivation layer.

5 5. The integrated circuit of claim 1, wherein an interconnect layer of the plurality of interconnect layers includes a second electrical conductor for routing a power supply voltage directly under the wire bond pad and the second electrical conductor is not directly connected to the plurality of wire bond pads.

10 6. A method for forming an integrated circuit comprising the steps of:
providing a substrate having active circuitry;
forming a plurality of copper interconnect layers formed over the
substrate;
depositing a passivation layer over the plurality of copper interconnect
15 layers; and
forming an aluminum wire bond pad over the passivation layer and
connected to an interconnect layer of the plurality of copper
interconnect layers, wherein an electrical conductor is formed in a
final copper layer of the plurality of copper interconnect layers that
20 directly underlies the aluminum wire bond pad, and wherein the
electrical conductor is not directly connected to wire bond pad.

7. The method of claim 6, wherein the step of forming the wire bond pad comprises forming the wire bond pad between about 0.5 to 2.0 microns thick.

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8. The method of claim 6, further comprising the step of connecting the wire bond pad to one of the plurality of interconnect layers through a plurality of openings in the passivation layer underneath the wire bond pad.

5 9. The method of claim 6, wherein the electrical conductor is for routing a power supply voltage to electrical circuits on the integrated circuit.

10. The method of claim 6, further comprising the step of connecting the wire bond pad to one of the plurality of copper interconnect layers using one or more
10 vias through the passivation layer.

11. The method of claim 6, wherein a second conductor is formed in the final copper layer for routing a power supply voltage directly under the wire bond pad and the second conductor is not directly connected to the wire bond pad.

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